

Friday, November 13, 2015 11:36:39 AM

**Item ID:** D5122-1

**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

**Item Name:** Center Support, Upper

**Start Date:** 12/1/2015      **Start Qty:** 4.00      **\*4\***

**Cust Item ID:**

**Required Date:** 12/1/2015      **Req'd Qty:** 4.00      **\*1\***

**Customer:**

**Reference:**

Approvals: Process Plan: MLJ Date: NOV 17 2015 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

**QC:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **SPC (Y/N):** \_\_\_\_\_ **Date:** \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D5122    | A            |

100

0.00

**\*100\***

## HAAS CNC VERTICAL MACHINING #1

HAAS 1

## Memo

0.05

## HAAS CNC vertical machine #1

Machine as per Folio FB324

Folio Rev: A

Dwg Rev: A

Debutt

110

0.00

**\*110\***

QC2- Inspect parts off machine FAI/FAIB

QC

## Memo

0.00

## Quality Control

**DAS**  
**44**  
**9-89**

15/12/02

**DAS**  
**44**  
**9-88**

15/12/02



## QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev I

# Work Order ID 138940

Friday, November 13, 2015 11:36:39 AM

**\*138940\***

Page 2

Item ID: D5122-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Center Support, Upper  
 Start Date: 12/1/2015 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 12/1/2015 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                          | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp    |
|--------------------------------|---------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|-------------------|
| 120                            | QC8- Inspect parts - second check                 | 0.00                 |         |        |              |               |               |                  | DAS<br>08<br>9-89 |
| <b>*120*</b>                   |                                                   |                      |         |        |              |               |               |                  |                   |
| QC                             | Memo                                              | 0.00                 |         |        |              |               |               |                  |                   |
| Quality Control                |                                                   |                      |         |        |              |               |               |                  |                   |
| 121                            | QC5- Inspect part completeness to step on W/O     | 0.00                 |         |        |              |               |               |                  | DAS<br>41<br>8-89 |
| <b>*121*</b>                   |                                                   |                      |         |        |              |               |               |                  |                   |
| QC                             | Memo                                              | 0.00                 |         |        |              |               |               |                  |                   |
| Quality Control                |                                                   |                      |         |        |              |               |               |                  |                   |
| 130                            | Identify as per dwg & Stock Location: <u>LG53</u> | 0.00                 |         |        |              |               |               |                  | DAS<br>41<br>9-89 |
| <b>*130*</b>                   |                                                   |                      |         |        |              |               |               |                  |                   |
| Packaging                      | Memo                                              | 0.00                 |         |        |              |               |               |                  |                   |
| Packaging                      | LOCATION : <u>LG054</u>                           |                      |         |        |              |               |               |                  | 15-12-3           |

20151203

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

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| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                                   |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Step #: _____                                                                                                                                                                      | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | <b>MRB (QSI042) Approval</b><br><br><div style="border: 1px solid black; height: 150px; margin-top: 10px;"></div> |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                    | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                   |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | Lead hand / Supervisor Approval Verification                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | QC / QA Coordinator Approval                                                                                      |  |
| <b>Root Cause</b><br><div style="display: flex; justify-content: space-between;"> <div>             Environment <input type="checkbox"/><br/>             Design <input type="checkbox"/><br/>             Doc/Data <input type="checkbox"/><br/>             Equip/Tooling <input type="checkbox"/><br/>             Handling/Pre <input type="checkbox"/><br/>             Material <input type="checkbox"/><br/>             Internal Transport <input type="checkbox"/><br/>             Tribal Knowledge <input type="checkbox"/><br/>             LOA <input type="checkbox"/><br/>             Substation <input type="checkbox"/><br/>             Past Expiry Date <input type="checkbox"/><br/>             Misidentified <input type="checkbox"/> </div> <div>             No Re-verification <input type="checkbox"/><br/>             Operator <input type="checkbox"/><br/>             Offset/Setup <input type="checkbox"/><br/>             Supplier <input type="checkbox"/><br/>             Training <input type="checkbox"/><br/>             Use for Testing <input type="checkbox"/><br/>             Poor Information <input type="checkbox"/><br/>             Rushing <input type="checkbox"/><br/>             Product Improvement <input type="checkbox"/><br/>             Process Improvement <input type="checkbox"/><br/>             Manufacturing Process <input type="checkbox"/><br/>             Past Due <input type="checkbox"/> </div> </div> |                                                                                                                                                                                    | <b>FAULT CATEGORY</b><br><div style="display: flex; justify-content: space-between;"> <div>             Pressure/Forced <input type="checkbox"/><br/>             Bending <input type="checkbox"/><br/>             Centre Not Concentric <input type="checkbox"/><br/>             Cracks <input type="checkbox"/><br/>             Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>             Cuffs <input type="checkbox"/><br/>             Crushing <input type="checkbox"/><br/>             Heat Treat <input type="checkbox"/><br/>             Wave/Twist in Tube <input type="checkbox"/><br/>             Marks/Chatter <input type="checkbox"/> </div> <div>             Temperature/Cure <input type="checkbox"/><br/>             Set-up <input type="checkbox"/><br/>             BOM/Route <input type="checkbox"/><br/>             Broken/Damage/Defect <input type="checkbox"/><br/>             Inspection Incomplete/Unqualified <input type="checkbox"/><br/>             Contamination <input type="checkbox"/><br/>             Countersink <input type="checkbox"/><br/>             Cut Too Short <input type="checkbox"/><br/>             Instructions Incomplete/Unclear <input type="checkbox"/><br/>             Drill Holes <input type="checkbox"/> </div> <div>             Power Loss/Surge <input type="checkbox"/><br/>             Folio/Program <input type="checkbox"/><br/>             Grain <input type="checkbox"/><br/>             Weld <input type="checkbox"/><br/>             Wrong Stock Pulled <input type="checkbox"/><br/>             Out of Sequence <input type="checkbox"/><br/>             Off-set <input type="checkbox"/><br/>             Misabeled <input type="checkbox"/><br/>             Fit/Function <input type="checkbox"/><br/>             Misaligned/off center <input type="checkbox"/> </div> <div>             Positioned Wrong <input type="checkbox"/><br/>             Outside Dimensions <input type="checkbox"/><br/>             Over/Under tolerance <input type="checkbox"/><br/>             Part Incorrect <input type="checkbox"/><br/>             Part Lost/Missing <input type="checkbox"/><br/>             Part Moved <input type="checkbox"/><br/>             Drawing <input type="checkbox"/><br/>             Finish <input type="checkbox"/><br/>             Misread <input type="checkbox"/><br/>             Turning Sequence <input type="checkbox"/> </div> </div> |  |                                                                                                                   |  |
| OTHER : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                                                   |  |

**Work Order ID 138940****\*138940\***

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Friday, November 13, 2015 11:36:39 AM

Item ID: D5122-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Center Support, Upper  
Start Date: 12/1/2015 Start Qty: 4.00 **\*4\*** Cust Item ID:  
Required Date: 12/1/2015 Req'd Qty: 4.00 **\*4\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 140                            | QC21- Final Inspection - Work Order Release | 0.00                 |         |        |              |               |               |                  |                |
| <b>*140*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                        | 0.01                 |         |        |              |               |               |                  |                |
| Quality Control                |                                             |                      |         |        |              |               |               |                  |                |

MLJ DEC 04 2015

20151203

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

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| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                          |  |                                              |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Step #: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | MRB (QS1042) Approval                        |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Completed By                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | Lead hand / Supervisor Approval Verification |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | QC / QA Coordinator Approval                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                              |  |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                              |  |
| <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">             Environment <input type="checkbox"/><br/>             Design <input type="checkbox"/><br/>             Doc/Data <input type="checkbox"/><br/>             Equip/Tooling <input type="checkbox"/><br/>             Handling/Pre <input type="checkbox"/><br/>             Material <input type="checkbox"/><br/>             Internal Transport <input type="checkbox"/><br/>             Tribal Knowledge <input type="checkbox"/><br/>             LOA <input type="checkbox"/><br/>             Substation <input type="checkbox"/><br/>             Past Expiry Date <input type="checkbox"/><br/>             Misidentified <input type="checkbox"/> </div> <div style="width: 50%;">             No Re-verification <input type="checkbox"/><br/>             Operator <input type="checkbox"/><br/>             Offset/Setup <input type="checkbox"/><br/>             Supplier <input type="checkbox"/><br/>             Training <input type="checkbox"/><br/>             Use for Testing <input type="checkbox"/><br/>             Poor Information <input type="checkbox"/><br/>             Rushing <input type="checkbox"/><br/>             Product Improvement <input type="checkbox"/><br/>             Process Improvement <input type="checkbox"/><br/>             Manufacturing Process <input type="checkbox"/><br/>             Past Due <input type="checkbox"/> </div> </div> | <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">             Pressure/Forced <input type="checkbox"/><br/>             Bending <input type="checkbox"/><br/>             Centre Not Concentric <input type="checkbox"/><br/>             Cracks <input type="checkbox"/><br/>             Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>             Cuffs <input type="checkbox"/><br/>             Crushing <input type="checkbox"/><br/>             Heat Treat <input type="checkbox"/><br/>             Wave/Twist in Tube <input type="checkbox"/><br/>             Marks/Chatter <input type="checkbox"/> </div> <div style="width: 50%;">             Temperature/Cure <input type="checkbox"/><br/>             Set-up <input type="checkbox"/><br/>             BOM/Route <input type="checkbox"/><br/>             Broken/Damage/Defect <input type="checkbox"/><br/>             Inspection Incomplete/Unqualified <input type="checkbox"/><br/>             Contamination <input type="checkbox"/><br/>             Countersink <input type="checkbox"/><br/>             Cut Too Short <input type="checkbox"/><br/>             Instructions Incomplete/Unclear <input type="checkbox"/><br/>             Drill Holes <input type="checkbox"/> </div> </div> | <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">             Power Loss/Surge <input type="checkbox"/><br/>             Folio/Program <input type="checkbox"/><br/>             Grain <input type="checkbox"/><br/>             Weld <input type="checkbox"/><br/>             Wrong Stock Pulled <input type="checkbox"/><br/>             Out of Sequence <input type="checkbox"/><br/>             Off-set <input type="checkbox"/><br/>             Misabeled <input type="checkbox"/><br/>             Fit/Function <input type="checkbox"/><br/>             Misaligned/off center <input type="checkbox"/> </div> <div style="width: 50%;">             Positioned Wrong <input type="checkbox"/><br/>             Outside Dimensions <input type="checkbox"/><br/>             Over/Under tolerance <input type="checkbox"/><br/>             Part Incorrect <input type="checkbox"/><br/>             Part Lost/Missing <input type="checkbox"/><br/>             Part Moved <input type="checkbox"/><br/>             Drawing <input type="checkbox"/><br/>             Finish <input type="checkbox"/><br/>             Misread <input type="checkbox"/><br/>             Turning Sequence <input type="checkbox"/> </div> </div> |  |                                              |  |
| OTHER : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                              |  |

# Picklist Print

Friday, November 13, 2015 11:36:39 AM

Page 1

Work Order ID: 138940

**\*138940\***

Parent Item: D5122-1

**\*D5122-1\***

Parent Item Name: Center Support, Upper

Start Date: 12/1/2015

Required Date: 12/1/2015

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV.A NEW ISSUE JFS 14/07/16 VERIFIED BY: DD

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D5122-1TRN                      |                        | Manufactured  | No          |                     |                  | 100             | Each               | 5.0000         | 0.5         | 2            |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |             | <b>DAS</b>   |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |             | <b>44</b>    |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |             | <b>9-89</b>  |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |             |              |               | 15/12/02       |        |

**\*D5122-1TRN\***

Center Support, Upper, Turning Detail

Location

Loc Qty

Loc Code

MAT060

5

130607

1

137481

4

3

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                      | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Step #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MRB (QSI042) Approval                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Completed By                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lead hand / Supervisor Approval Verification                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | QC / QA Coordinator Approval                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Environment <input type="checkbox"/><br>Design <input type="checkbox"/><br>Doc/Data <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Pre <input type="checkbox"/><br>Material <input type="checkbox"/><br>Internal Transport <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/><br>LOA <input type="checkbox"/><br>Substation <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/><br>Misidentified <input type="checkbox"/> | No Re-verification <input type="checkbox"/><br>Operator <input type="checkbox"/><br>Offset/Setup <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Training <input type="checkbox"/><br>Use for Testing <input type="checkbox"/><br>Poor Information <input type="checkbox"/><br>Rushing <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Past Due <input type="checkbox"/> | Pressure/Forced <input type="checkbox"/><br>Bending <input type="checkbox"/><br>Centre Not Concentric <input type="checkbox"/><br>Cracks <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave <input type="checkbox"/><br>Cuffs <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Heat Treat <input type="checkbox"/><br>Wave/Twist in Tube <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Temperature/Cure <input type="checkbox"/><br>Set-up <input type="checkbox"/><br>BOM/Route <input type="checkbox"/><br>Broken/Damage/Defect <input type="checkbox"/><br>Inspection Incomplete/Unqualified <input type="checkbox"/><br>Contamination <input type="checkbox"/><br>Countersink <input type="checkbox"/><br>Cut Too Short <input type="checkbox"/><br>Instructions Incomplete/Unclear <input type="checkbox"/><br>Drill Holes <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set <input type="checkbox"/><br>Misabeled <input type="checkbox"/><br>Fit/Function <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/><br>Outside Dimensions <input type="checkbox"/><br>Over/Under tolerance <input type="checkbox"/><br>Part Incorrect <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Part Moved <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Misread <input type="checkbox"/><br>Turning Sequence <input type="checkbox"/> |
| OTHER : <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |



|                                    |               |                             |
|------------------------------------|---------------|-----------------------------|
| <b>DART AEROSPACE LTD</b>          |               | <b>Work Order:</b> 138940   |
| <b>Description:</b> Center Support |               | <b>Part Number:</b> D5122-1 |
| <b>Inspection Dwg:</b> D5122       | <b>Rev:</b> A | <b>Page 1 of 1</b>          |

### FIRST ARTICLE INSPECTION DIMENSION SHEET

|              |        |        |                | Record Actual Dimensions |       |       |       |       |
|--------------|--------|--------|----------------|--------------------------|-------|-------|-------|-------|
| Dim          | Min    | Max    | Go/No Go Gauge | 1                        | 2     | 3     | 4     | 5     |
| HAAS Section |        |        |                |                          |       |       |       |       |
| AA           | 1.182  | 1.202  |                | 1.192                    | 1.192 | 1.192 | 1.192 | 1.190 |
| AB           | 0.090  | 0.110  |                | .100                     | .100  | .100  | .100  | .100  |
| AC           | 0.545  | 0.565  |                | .557                     | .557  | .557  | .557  | .557  |
| AD           | 3.690  | 3.700  |                | 3.697                    | 3.697 | 3.697 | 3.697 | 3.697 |
| AE           | 3.550  | 3.560  |                | 3.557                    | 3.557 | 3.557 | 3.557 | 3.557 |
| AF           | 2.453  | 2.473  |                | 2.464                    | 2.464 | 2.465 | 2.464 | 2.464 |
| AG           | 1.261  | 1.281  |                | 1.271                    | 1.273 | 1.273 | 1.272 | 1.275 |
| AH           | 0.150  | 0.210  |                | .180                     | .180  | .180  | .180  | .180  |
| AI           | 0.454  | 0.474  |                | .463                     | .464  | .458  | .458  | .462  |
| AJ           | Ø0.260 | Ø0.267 |                | .261                     | .261  | .261  | .261  | .261  |
| AK           | Ø0.188 | Ø0.194 |                | .189                     | .189  | .189  | .189  | .189  |
| AL           | 3.067  | 3.077  |                | 3.072                    | 3.072 | 3.072 | 3.072 | 3.072 |
| AM           | 3.990  | 4.010  |                | 4.003                    | 4.003 | 3.995 | 3.995 | 4.002 |
| AN           | 1.990  | 2.010  |                | 2.003                    | 2.003 | 1.999 | 1.999 | 1.999 |
| AO           | Ø0.625 | Ø0.630 |                | .627                     | .628  | .627  | .627  | .627  |
| AP           |        |        |                |                          |       |       |       |       |
| AQ           |        |        |                |                          |       |       |       |       |
| AR           |        |        |                |                          |       |       |       |       |
| AS           |        |        |                |                          |       |       |       |       |
| AT           |        |        |                |                          |       |       |       |       |
| AU           |        |        |                |                          |       |       |       |       |
| AV           |        |        |                |                          |       |       |       |       |
| AW           |        |        |                |                          |       |       |       |       |
| AX           |        |        |                |                          |       |       |       |       |
| AY           |        |        |                |                          |       |       |       |       |
| AZ           |        |        |                |                          |       |       |       |       |

**Ensure that Ø .625" bore is perpendicular to R. 1.3014" bore within .005"**

|                                |            |      |                       |      |      |      |
|--------------------------------|------------|------|-----------------------|------|------|------|
| DAS Accept/Reject              |            | .001 | .001                  | .001 | .001 | .001 |
| <b>Measured by:</b> 44<br>9-89 | DAS        |      | <b>Date:</b> 15/12/01 |      |      |      |
| <b>Audited by:</b> A.A         | 08<br>9-89 |      | <b>Date:</b> 15/12/03 |      |      |      |
| <b>Preliminary Approval:</b>   |            |      | <b>Date:</b>          |      |      |      |

| Rev | Date     | Change    | Revised By | Approved |
|-----|----------|-----------|------------|----------|
| A   | 15.03.12 | New Issue | KJ         |          |

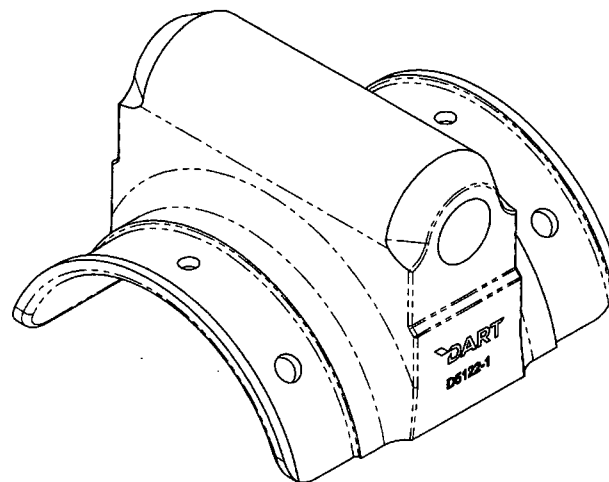
|                                    |               |                             |
|------------------------------------|---------------|-----------------------------|
| <b>DART AEROSPACE LTD</b>          |               | <b>Work Order:</b> 138940   |
| <b>Description:</b> Center Support |               | <b>Part Number:</b> D5122-1 |
| <b>Inspection Dwg:</b> D5122       | <b>Rev:</b> A | <b>Page 1 of 1</b>          |

### FIRST ARTICLE INSPECTION DIMENSION SHEET

| Dim                                                                             | Min    | Max    | Go/No Go Gauge | Record Actual Dimensions |   |   |   |   |
|---------------------------------------------------------------------------------|--------|--------|----------------|--------------------------|---|---|---|---|
|                                                                                 |        |        |                | 1                        | 2 | 3 | 4 | 5 |
| <b>HAAS Section</b>                                                             |        |        |                |                          |   |   |   |   |
| AA                                                                              | 1.782  | 1.202  |                | 1.191                    |   |   |   |   |
| AB                                                                              | 0.090  | 0.110  |                | .100                     |   |   |   |   |
| AC                                                                              | 0.545  | 0.565  |                | .556                     |   |   |   |   |
| AD                                                                              | 3.690  | 3.700  |                | 3.694                    |   |   |   |   |
| AE                                                                              | 3.550  | 3.560  |                | 3.557                    |   |   |   |   |
| AF                                                                              | 2.453  | 2.473  |                | 2.466                    |   |   |   |   |
| AG                                                                              | 1.261  | 1.281  |                | 1.271                    |   |   |   |   |
| AH                                                                              | 0.150  | 0.210  |                | .180                     |   |   |   |   |
| AI                                                                              | 0.454  | 0.474  |                | .461                     |   |   |   |   |
| AJ                                                                              | Ø0.260 | Ø0.267 |                | .261                     |   |   |   |   |
| AK                                                                              | Ø0.188 | Ø0.194 |                | .189                     |   |   |   |   |
| AL                                                                              | 3.067  | 3.077  |                | 3.072                    |   |   |   |   |
| AM                                                                              | 3.990  | 4.010  |                | 4.002                    |   |   |   |   |
| AN                                                                              | 1.990  | 2.010  |                | 1.996                    |   |   |   |   |
| AO                                                                              | Ø0.625 | Ø0.630 |                | .627                     |   |   |   |   |
| AP                                                                              |        |        |                |                          |   |   |   |   |
| AQ                                                                              |        |        |                |                          |   |   |   |   |
| AR                                                                              |        |        |                |                          |   |   |   |   |
| AS                                                                              |        |        |                |                          |   |   |   |   |
| AT                                                                              |        |        |                |                          |   |   |   |   |
| AU                                                                              |        |        |                |                          |   |   |   |   |
| AV                                                                              |        |        |                |                          |   |   |   |   |
| AW                                                                              |        |        |                |                          |   |   |   |   |
| AX                                                                              |        |        |                |                          |   |   |   |   |
| AY                                                                              |        |        |                |                          |   |   |   |   |
| AZ                                                                              |        |        |                |                          |   |   |   |   |
| <b>Ensure that Ø .625 " bore is perpendicular to Ø .614 " bore within .005"</b> |        |        |                |                          |   |   |   |   |
| Accept/Reject                                                                   |        |        |                | .000                     |   |   |   |   |

|                                        |  |                       |
|----------------------------------------|--|-----------------------|
| <b>Measured by:</b> DAS 44<br>9-89     |  | <b>Date:</b> 15/12/02 |
| <b>Audited by:</b> B. a DAS 08<br>9-89 |  | <b>Date:</b> 15/12/03 |
| <b>Preliminary Approval:</b>           |  | <b>Date:</b>          |

| Rev | Date     | Change    | Revised By | Approved |
|-----|----------|-----------|------------|----------|
| A   | 15.03.12 | New Issue | KJ         |          |



**D5122-1 CENTER SUPPORT**

**NOTES:**

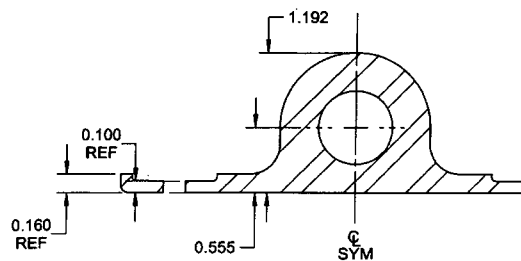
- 1) MATERIAL: MAKE FROM D5122-1TRN
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART LOGO AND P/N "D5122-1" IN AREA SHOWN  
USING 0.125 HIGH X 0.010-0.020 DEEP LETTERING PER DART QSI 044 6.3,  
IDENTIFY WITH DART B/N PER DART QSI 044 6.1
- 7) WEIGHT: 2.13 lbs
- 8) ALL NON-DIMENSIONED FEATURES DEFINED PER DRAWING FILE "D5122-1-REVA.SLDPRT"

138940 MJS  
15-11-17

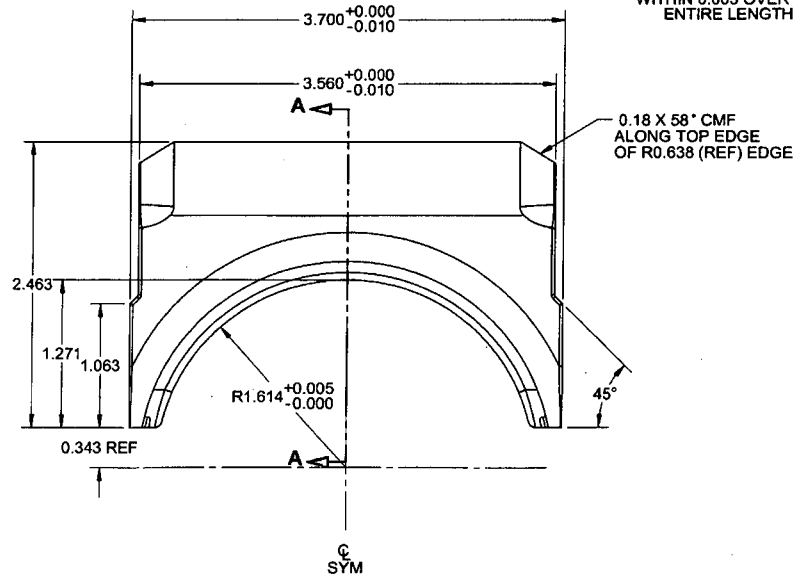
**RELEASED**  
2014-08-25

|            |             |                                                                                                                                                                                                                                                                          |              |    |          |
|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----|----------|
| A          |             | NEW ISSUE                                                                                                                                                                                                                                                                |              | AP | 14.06.02 |
| REV.       | DESCRIPTION |                                                                                                                                                                                                                                                                          |              | BY | DATE     |
| DESIGN     | AP          | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                        |              |    |          |
| DRAWN      | AP          |                                                                                                                                                                                                                                                                          |              |    |          |
| CHECKED    | CP          | DRAWING NO.                                                                                                                                                                                                                                                              | REV. /       |    |          |
| MFG. APPR. | JLM         | D5122                                                                                                                                                                                                                                                                    | SHEET 1 OF 3 |    |          |
| APPROVED   | MP          | TITLE                                                                                                                                                                                                                                                                    | SCALE        |    |          |
| DE APPR.   | DS          | CENTER SUPPORT                                                                                                                                                                                                                                                           | NT           |    |          |
| DATE       | 14.06.02    | COPYRIGHT © 2014 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |    |          |

APPROVED



**SECTION A-A**



**D5122-1 CENTER SUPPORT**

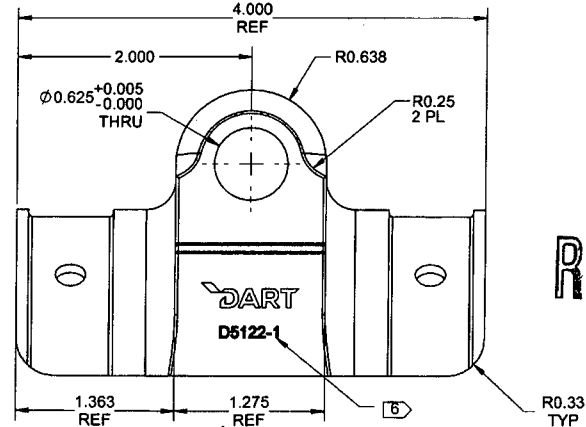
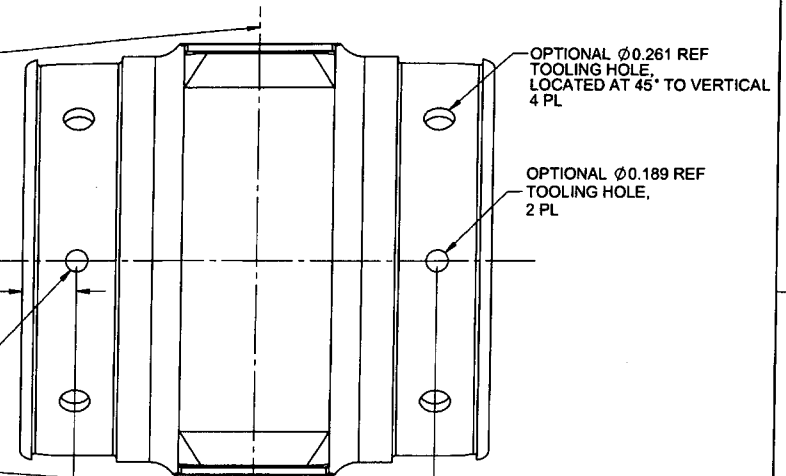
HOLES PERPENDICULAR  
WITHIN 0.005 OVER  
ENTIRE LENGTH

R0.063  
AROUND INSIDE EDGE

0.464 REF

HOLES PERPENDICULAR  
WITHIN 0.005 OVER  
ENTIRE LENGTH

0.18 X 58° CMF  
ALONG TOP EDGE  
OF R0.638 (REF) EDGE

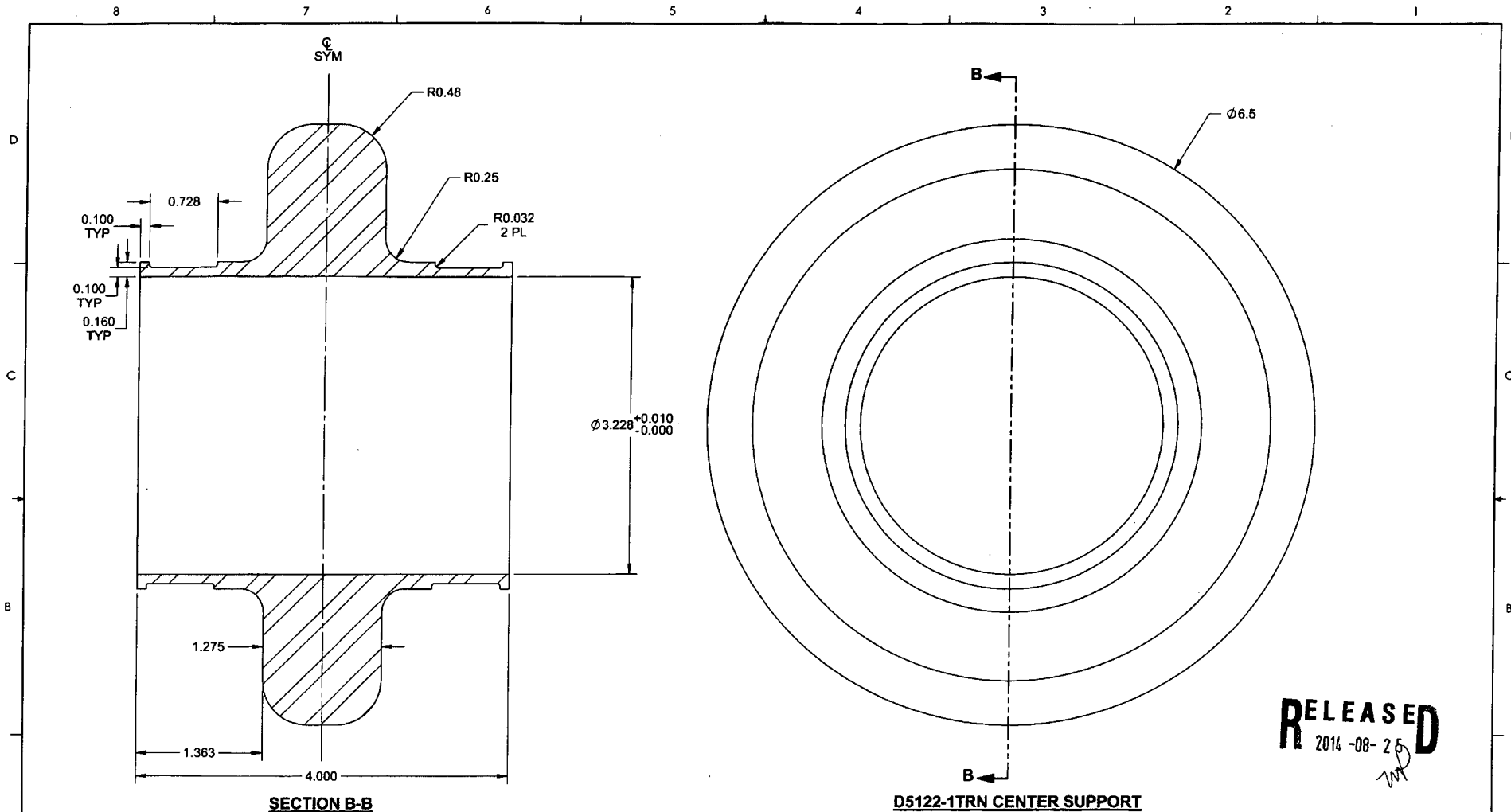


OPTIONAL  $\phi 0.261$  REF  
TOOLING HOLE,  
LOCATED AT 45° TO VERTICAL  
4 PL

OPTIONAL  $\phi 0.189$  REF  
TOOLING HOLE,  
2 PL

**RELEASED**  
2014-08-25

|          |            |          |                                                                                                                                                                                                                                                                                        |              |
|----------|------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| APPROVED | DESIGN     | AP       | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                               |              |
|          | DRAWN      | AP       |                                                                                                                                                                                                                                                                                        |              |
|          | CHECKED    | CP       | DRAWING NO.                                                                                                                                                                                                                                                                            | REV. A       |
|          | MFG. APPR. | JLM      | D5122                                                                                                                                                                                                                                                                                  | SHEET 2 OF 3 |
|          | APPROVED   | MP       | TITLE                                                                                                                                                                                                                                                                                  | SCALE        |
|          | DE APPR.   | DS       | <b>CENTER SUPPORT</b>                                                                                                                                                                                                                                                                  | NTS          |
| DATE     |            | 14.06.02 | <small>COPYRIGHT © 2014 BY DART AEROSPACE LTD<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br/>NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br/>WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |              |



**RELEASED**  
2014-08-25

- NOTES:**
- 1) MATERIAL: 17-4PH/S17400/TYPE 630 ROUND BAR PER AMS 5643 / ASTM A564, REF DART SPEC. M17-4-R H900 OR H925 CONDITION, MIN UTS = 170 KSI (38 HRc)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 11.25 lbs

|          |            |          |                                                                                                                                                                                                                                                                                           |              |
|----------|------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| APPROVED | DESIGN     | AP       | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                  |              |
|          | DRAWN      | AP       |                                                                                                                                                                                                                                                                                           |              |
|          | CHECKED    | CP       | DRAWING NO.                                                                                                                                                                                                                                                                               | REV. A       |
|          | MFG. APPR. | JLM      | <b>D5122</b>                                                                                                                                                                                                                                                                              | SHEET 3 OF 3 |
|          | APPROVED   | MP       | TITLE                                                                                                                                                                                                                                                                                     | SCALE        |
|          | DE APPR.   | DS       | <b>CENTER SUPPORT</b>                                                                                                                                                                                                                                                                     | NTS          |
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